Warning: Refer to current foreign charts and flight information publications for information within foreign airspace

L-10 PANELS FGHIJ 1"=12 NM

L-9

PANELS ABCDE 1"=14 NM

UNITED STATES GOVERNMENT
FLIGHT INFORMATION PUBLICATION

IFR ENROUTE LOW ALTITUDE - U.S.

For use up to but not including 18,000' MSL

EFFECTIVE 0901Z 23 SEP 2010
TO 0901Z 18 NOV 2010

Consult NOTAMs for latest Information

Published by the
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Federal Aviation Administration
AeroNav Services
http://AERONAV.FAA.GOV

CORRECTIONS, COMMENTS, AND/OR PROCUREMENT

FOR RECOMMENDATIONS REGARDING FORMAT AND CONTENT CONTACT:
FAA, Aeronautical Information Services, AJR-321
800 Independence Ave., S.W.,
Washington, D.C. 20591
Online at http://nfdc.faa.gov
Email 9-AWA-ATOR-AIS-feedback@faa.gov
Telephone 1-866-295-8236

FOR PROCUREMENT CONTACT:
FAA, National Aeronautical Navigation Services
Distribution Team, ATO-W
10201 Good Luck Road
Glenn Dale, MD 20769-9700
Online at http://AERONAV.FAA.GOV
Email 9-AMC-Chartsales@faa.gov
Tel. 1-800-638-8972 Fax 301-436-6829
or any authorized chart agent

FOR CHARTING ERRORS CONTACT:
FAA, National Aeronautical Navigation Services, ATO-W
SSMC-4, Sta. # 4259
1305 East-West Highway
Silver Spring, MD 20910-3281
Telephone 1-800-626-3677
Email 9-AMC-Aerochart@faa.gov

MILITARY
For Corrections Information, See Chapter 11 of General Planning (GP). For Procurement refer to DOD Catalog of Aeronautical Charts and Flight Information Publications.

Frequently asked questions (FAQ) are answered on our web site at http://AERONAV.FAA.GOV. See the FAQs prior to contact via toll free number or email.

ATTENTION

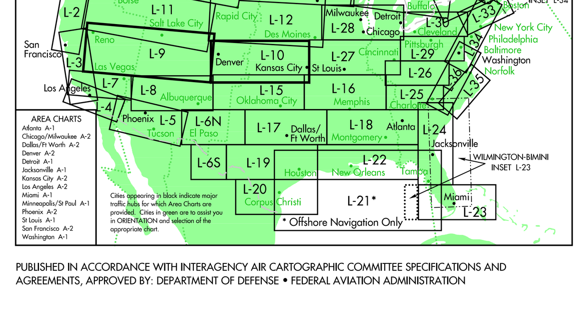
THIS CHART CONTAINS OFF ROUTE OBSTRUCTION CLEARANCE ALTITUDES (OROCA).
The off route obstruction clearance altitudes shown in quadrangles bounded by ticked lines of latitude and longitude are represented in THOUSANDS and HUNDREDS of feet above mean sea level. The OROCA is based on information available concerning the highest known features in each quadrangle, including terrain and obstructions. OROCA provides obstruction clearance with a 1000 foot buffer in designated non-mountainous areas and a 2000 foot buffer in designated mountainous areas within the United States. For areas in Mexico and the Caribbean which are located outside of the U.S. ADIZ, OROCA provides obstruction clearance with a 3000 foot buffer. This altitude is provided for obstruction clearance only. It does not provide for NAVAID signal coverage or communication coverage, and would not be consistent with altitudes assigned by Air Traffic Control.

Example: 12,500 feet 12⁵

L-9

23 SEP 2010
UNITED STATES

Federal Aviation Administration



PUBLISHED IN ACCORDANCE WITH INTERAGENCY AIR CARTOGRAPHIC COMMITTEE SPECIFICATIONS AND AGREEMENTS, APPROVED BY: DEPARTMENT OF DEFENSE • FEDERAL AVIATION ADMINISTRATION

UNITED STATES GOVERNMENT
FLIGHT INFORMATION PUBLICATION

IFR ENROUTE LOW ALTITUDE - U.S.

For use up to but not including 18,000' MSL
HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983

LEGEND

AIRPORTS

Facilities in BLUE or GREEN have an approved Instrument Approach Procedure and/or RADAR MINIMA published in either the FAA Terminal Procedures Publications or the DoD FLIPs. Those in BLUE have an Instrument Approach Procedure and/or RADAR MINIMA published at least in the High Altitude DoD FLIPs. Facilities in BROWN do not have a published Instrument Approach Procedure or RADAR MINIMA.

LAND: Civil; Civil - Military; Military; Heliport
SEA: Civil

1. A solid line box enclosing the airport name indicates FAR 93 Special Requirements-see Directory/Supplement
2. "NO SVFR" above the airport name indicates FAR 91 fixed-wing special VFR flight is prohibited
3. C or D following the airport name indicates Class C or Class D Airspace
4. Pvt - Private use
5. Associated city names for public airports are shown above or preceding the airport name. If airport name and city name are the same, only the airport name is shown. City names for military and private airports are not shown. The airport identifier in parentheses follows the airport name.

Airport Ident; ICAO Location Indicator shown outside contiguous U.S.; Airport Elevation; Automatic Terminal Information Service; Part-time; Frequency

Part-time or established by NOTAM. See Airport/Facility Directory for times of operation. In Alaska see Supplement Alaska

Longest runway length to nearest 100 feet with 70 feet as the dividing point (add 00); s indicates soft surface

Lighting Capability:
L Lighting available
Ⓛ Pilot Controlled Lighting
★ Part-time or on request
- No lighting available
At private facilities - indicates no lighting information is available.

NAVAIDS AND COMMUNICATION BOXES

NAVAIDS

VHF/UHF Data is depicted in BLACK
LF/MF Data is depicted in BROWN

COMPASS ROSES Oriented to Magnetic North of NAVAID which may not be adjusted to the charted isogonic values. Smaller sizes are used in congested areas.

VOR, VOR/DME, TACAN, VORTAC

LF/MF Non-directional Radiobeacon or Marine Radiobeacon with magnetic north indicator

UHF Non-directional Radiobeacon

LF/MF Non-directional Radiobeacon/DME

Compass Locator Beacon

Flight Service Station (FSS), Remote Communications Outlet (RCO) or Automated Weather Observing Station (ASOS/AWOS) not associated with a charted NAVAID or airport

ILS Localizer Course with additional navigation function

COMMUNICATION BOXES

VOR with TACAN compatible DME

Underline indicates No Voice transmitted on this frequency. TACAN Channels are without voice but not underlined.

Crosshatch indicates Shutdown status

(T) Frequency protection usable range at 12,000' AGL - 25NM

(Y) TACAN must be placed in "Y" mode to receive distance information

TACAN Channel paired with VHF Frequency in parenthesis.

Automated Weather Broadcast Systems: ASOS/AWOS, HIWAS, TWEB

Automated weather, when available, is broadcast on the associated NAVAID frequency.

Stand Alone ASOS/AWOS

Part-Time or On-Request

LF/MF Non-directional Radiobeacon/DME
VHF Freq paired with TACAN Channel

TACAN FIX DATA: Ident, Chan, Bearing from TACAN, Distance from TACAN

Freq(s) positioned above thin line NAVAID box is remoted to the NAVAID site. Other freq(s) at the named FSS radio are available, however, altitude and terrain may determine their reception.

Thin line NAVAID boxes without freq(s) and FSS radio name indicates no freq(s) available.

Shadow NAVAID box indicates NAVAID and Flight Service Station (FSS) have same name

FSS name and identifier not associated with NAVAID

Remote Communications Outlet (RCO). FSS radio name and remoted freq(s) are shown.

SHADOW BOXES indicate Flight Service Stations (FSS). Frequencies 122.2, 255.4 and emergency 121.5 and 243.0 (Canada-121.5, 126.7 and 243.0) are available at many FSSs and are not shown. All other frequencies are shown. Certain FSSs provide Airport Advisory Service, see A/FD. Frequencies transmit and receive except those followed by R or T:
R - Receive only
T - Transmit only

AIR TRAFFIC SERVICES AND AIRSPACE INFORMATION

ROUTE DATA

VHF/UHF Data is depicted in BLACK
LF/MF Data is depicted in BROWN
RNAV Data is depicted in BLUE

VOR Airway; LF/MF Airway; Uncontrolled LF/MF Airway; Oceanic Route; ATS Route; Low Altitude RNAV Route GNSS required

Substitute Route: Via/bypassing temporarily shutdown NAVAIDS. See NOTAMs or appropriate publications for specific information.

Unusable Route Segment

Preferred Single Direction Route

Direction of Flight Indicator (Canada only)

Facility Locators used in formation of Reporting Points

Radial outbound from a VHF/UHF NAVAID

Bearing inbound to an LF/MF NAVAID

Magnetic Reference Bearing, outbound from a NAVAID or Fix

Total Mileage between Compulsory Fixes and/or NAVAIDS

Mileage between other Fixes, NAVAIDS and/or Mileage Breakdown

Changeover Point giving mileage to NAVAIDs (Not shown at midpoint locations)

Minimum Obstruction Clearance Altitude (MOCA)

Minimum Enroute Altitude (MEA); GNSS RNAV MEA

Maximum Authorized Altitude (MAA)

MEA, MOCA and/or MAA Change at other than NAVAIDs

Minimum Reception Altitude (MRA)

Minimum Crossing Altitude (MCA)

Holding Pattern with max restricted airspeed 210K applies to all altitudes above 6000' to and including 14000' 175K applies to all altitudes

FIXES/ATC REPORTING REQUIREMENTS

Fix Compulsory and Non-Compulsory Position Report

RNAV Waypoint Compulsory and Non-Compulsory Position Report

Denotes DME Fix (Distance same as route mileage)

Denotes DME Fix and Mileage

Offset arrows indicate facility forming a fix (away from VHF/UHF, toward LF/MF NAVAID)

Mileage Breakdown or Computer Navigational Fix (CNF) (no ATC functions)

BOUNDARIES

Air Route Traffic Control Center (ARTCC)

ARTCC Remoted Sites with discrete VHF and UHF frequencies

Flight Information Region (FIR)

Type of Area Traffic Service; Ceiling; Floor

Air Defense Identification Zone (ADIZ)

12⁵ Off Route Obstruction Clearance Altitudes (OROCA) Example: 12,500 feet

International Boundary (Not shown where coincident with ARTCC or FIR)

US/Russia Maritime Boundary

Area of Enlargement (contains only data for through flights) See Area Charts for complete data

Official Time Zone

International Date Line

AIRSPACE INFORMATION

Open area (white) indicates controlled airspace (Class E) unless otherwise indicated

All airspace 14,500' and above is controlled (Class E)

Shaded area (brown) indicates uncontrolled airspace below 14,500' (Class G)

In Canada - Indicates Class B Airspace above 12,500'

Oceanic Control Area (CTA)

Additional Control Area limit

Class B Airspace; Class C Airspace; Mode C Area See FAR 91.215

EXAMPLE OF GROUPING

Magnetic Reference Bearings will not be shown on joint Victor/RNAV routes.

Reporting Points (coordinates are shown for offshore and holding fixes)

Airway Restriction (airway penetrates Prohibited & Restricted Airspace)

MEA is established with a gap in navigation signal coverage

Water Vignette

SPECIAL USE AIRSPACE

P - Prohibited Area
R - Restricted Area
W - Warning Area
A - Alert Area
MOA - Military Operations Area

In Canada:
CYA - Advisory Area
CYD - Danger Area
CYR - Restricted Area

Line delimits internal separation of same Special Use Area

See Airspace Tabulation for complete information

MILITARY TRAINING ROUTES (MTRs)

MTRs 5 NM or less both sides of centerline

MTRs greater than 5 NM either or both sides of centerline

Arrow indicates direction of route

See MTR tabs for altitude range information. All IR and VR MTRs are shown except those VRs at or below 1500' AGL. CAUTION: Inset charts do not depict MTRs

CRUISING ALTITUDES - U.S.

IFR within controlled airspace as assigned by ATC

IFR: EVEN Thousands; ODD Thousands
VFR or ON TOP: EVEN Thousands Plus 500'; ODD Thousands Plus 500'

VFR above 3000' AGL unless otherwise authorized by ATC
IFR outside controlled airspace
All courses are magnetic

MISCELLANEOUS

ALTIMETER Altimeter setting change
2005 Isogonic Line and Value
All Mileages are Nautical except as noted.
All Radials and Bearings are magnetic except as noted.
All Altitudes are MSL except as noted.
All Time is Coordinated Universal Time (UTC), Daylight Saving Time (DT), effective hours will be one hour earlier than shown. All states observe DT except Arizona and Hawaii.
North American Datum of 1983 (NAD 83), for charting purposes is considered equivalent to World Geodetic System 1984 (WGS 84).

FOR ADDITIONAL SYMBOL INFORMATION REFER TO THE CHART USER'S GUIDE

US L-9 (GREEN PLATE) US L-9 (BLUE PLATE) US L-9 (BROWN PLATE) US L-9 (BLACK PLATE)

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